

REMARKS

This is a full and timely response to the outstanding non-final Office Action mailed October 31, 2007. The Examiner is thanked for the thorough examination of the present application. Upon entry of this response, claims 1-21 are pending in the present application. More specifically, claims 1, 3, 10, 12-13, 16, and 19 are amended, and no new matter is added to the present application by these amendments. These amendments are specifically described hereinafter.

I. Present Status of Patent Application

Claims 1-21 are rejected under 35 U.S.C. §102(b) as allegedly being anticipated by *Nelson* (U.S. Pat. No. 6,263,048, hereinafter "*Nelson*"). Applicants respectfully request consideration of the following remarks contained herein. Reconsideration and allowance of the application and presently pending claims are respectfully requested. For at least the reasons set forth below, Applicant respectfully traverses the rejection to the extent not rendered moot by amendment.

II. Rejections Under 35 U.S.C. §102(b)

A. Claims 1-12

Independent claim 1, as amended, recites as follows:

1. A method for dynamic bin allocation, the method comprising:
obtaining link performance data based on a plurality of test transmissions between two network elements, wherein the plurality of test transmissions utilize ***each of a plurality of transmission modes in each of a plurality of frequency ranges***;
determining a desired transmission scheme, wherein each of the plurality of frequency ranges is designated for one of the transmission modes based at least in part on the link performance data; and

**assigning the desired transmission scheme to a connection
between the two network elements.**

Applicant respectfully submits that independent claim 1, as amended, is allowable for at least the reason that Nelson does not disclose, teach, or suggest at least assigning the desired transmission scheme to a connection between the two network elements. The cited reference discloses the testing of "performance of digital subscriber loops...tested through transmission, reception, and analysis of a multi-tone power ratio waveform." However, the mere testing of digital subscriber loops, as is disclosed in the Nelson reference, fails to disclose determining a **desired** transmission scheme and **assigning** such desired transmission scheme to a network connection. In addition, the cited reference fails to disclose the plurality of test transmissions that utilize each of a plurality of transmission modes **and** each of a plurality of frequency ranges. In contrast, Nelson discloses "monitoring a channel response to a waveform that consists of a large number of frequency domain impulses, uniformly spaced over the bandwidth of interest," whereas the claimed invention utilizes **each** of a plurality of transmission modes in **each** of a plurality of frequency ranges. Therefore, Nelson does not anticipate independent claim 1, and the rejection should be withdrawn for at least the above reasons.

For at least the reason that independent claim 1, as amended, is allowable over the cited references of record, dependent claims 2-12 (which depend from independent claim 1) are allowable as a matter of law for at least the reason that dependent claims 2-12 contain all the features of independent claim 1. See *Minnesota Mining and Manufacturing Co. v. Chemque, Inc.*, 303 F.3d 1294, 1299 (Fed. Cir. 2002)

Jeneric/Pentron, Inc. v. Dillon Co., 205 F.3d 1377, 54 U.S.P.Q.2d 1086 (Fed. Cir. 2000);
Wahpeton Canvas Co. v. Frontier Inc., 870 F.2d 1546, 10 U.S.P.Q.2d 1201 (Fed. Cir.
1989). Therefore, since dependent claims 2-12 are patentable over Nelson, the
rejection of claims 2-12 should be withdrawn and the claims allowed.

B. Claims 13-15

Independent claim 13, as amended, recites as follows:

13. A system for dynamic bin allocation, the system comprising a first network element and a second network element, wherein each of the first network element and the second network element comprises at least a processor module and a transceiver module that are coordinated to obtain link performance data based on a plurality of test transmissions between the first network element and the second network element, wherein the plurality of test transmissions utilize ***each of a plurality of transmission modes in each of a plurality of frequency ranges***; determine a desired transmission scheme, wherein each of the plurality of frequency ranges is designated for one of the transmission modes based at least in part on the link performance data; and ***assign the desired transmission scheme to a connection between the two network elements***.

Applicant respectfully submits that independent claim 13, as amended, is allowable for at least the reason that Nelson does not disclose, teach, or suggest at least assigning the desired transmission scheme to a connection between the two network elements. The cited reference discloses the testing of "performance of digital subscriber loops...tested through transmission, reception, and analysis of a multi-tone power ratio waveform." However, the mere testing of digital subscriber loops, as is disclosed in the Nelson reference, fails to disclose a system coordinated to determine a ***desired*** transmission scheme and ***assign*** such desired transmission scheme to a

network connection. In addition, the cited reference fails to disclose the plurality of test transmissions that utilize each of a plurality of transmission modes **and** each of a plurality of frequency ranges. In contrast, Nelson discloses "monitoring a channel response to a waveform that consists of a large number of frequency domain impulses, uniformly spaced over the bandwidth of interest," whereas the claimed invention utilizes **each** of a plurality of transmission modes in **each** of a plurality of frequency ranges. Therefore, Nelson does not anticipate independent claim 13, and the rejection should be withdrawn for at least the above reasons.

For at least the reason that independent claim 13, as amended, is allowable over the cited references of record, dependent claims 14-15 (which depend from independent claim 13) are allowable as a matter of law for at least the reason that dependent claims 14-15 contain all the features of independent claim 13. See *Minnesota Mining and Manufacturing Co. v. Chemque, Inc.*, 303 F.3d 1294, 1299 (Fed. Cir. 2002) *Jeneric/Pentron, Inc. v. Dillon Co.*, 205 F.3d 1377, 54 U.S.P.Q.2d 1086 (Fed. Cir. 2000); *Wahpeton Canvas Co. v. Frontier Inc.*, 870 F.2d 1546, 10 U.S.P.Q.2d 1201 (Fed. Cir. 1989). Therefore, since dependent claims 14-15 are patentable over Nelson, the rejection of claims 14-15 should be withdrawn and the claims allowed.

C. Claims 16-18

Independent claim 16, as amended, recites as follows:

16. A system for dynamic bin allocation, the system comprising:
means for obtaining link performance data based on a plurality of test transmissions between two network elements, wherein the plurality of test transmissions utilize **each of a plurality of transmission modes in each of a plurality of frequency ranges**;

means for determining a desired transmission scheme, wherein each of the plurality of frequency ranges is designated for one of the transmission modes based at least in part on the link performance data; and

means for ***assigning the desired transmission scheme to a connection between the two network elements.***

Applicant respectfully submits that independent claim 16, as amended, is allowable for at least the reason that Nelson does not disclose, teach, or suggest at least assigning the desired transmission scheme to a connection between the two network elements. The cited reference discloses the testing of "performance of digital subscriber loops... tested through transmission, reception, and analysis of a multitone power ratio waveform." However, the mere testing of digital subscriber loops, as is disclosed in the Nelson reference, fails to disclose means for determining a ***desired*** transmission scheme and means for ***assigning*** such desired transmission scheme to a network connection. In addition, the cited reference fails to disclose the plurality of test transmissions that utilize each of a plurality of transmission modes ***and*** each of a plurality of frequency ranges. In contrast, Nelson discloses "monitoring a channel response to a waveform that consists of a large number of frequency domain impulses, uniformly spaced over the bandwidth of interest," whereas the claimed invention utilizes ***each*** of a plurality of transmission modes in ***each*** of a plurality of frequency ranges. Therefore, Nelson does not anticipate independent claim 16, and the rejection should be withdrawn for at least the above reasons.

For at least the reason that independent claim 16, as amended, is allowable over the cited references of record, dependent claims 17-18 (which depend from independent claim 16) are allowable as a matter of law for at least the reason that

dependent claims 17-18 contain all the features of independent claim 16. See *Minnesota Mining and Manufacturing Co. v. Chemque, Inc.*, 303 F.3d 1294, 1299 (Fed. Cir. 2002) *Jeneric/Pentron, Inc. v. Dillon Co.*, 205 F.3d 1377, 54 U.S.P.Q.2d 1086 (Fed. Cir. 2000); *Wahpeton Canvas Co. v. Frontier Inc.*, 870 F.2d 1546, 10 U.S.P.Q.2d 1201 (Fed. Cir. 1989). Therefore, since dependent claims 17-18 are patentable over Nelson, the rejection of claims 17-18 should be withdrawn and the claims allowed.

D. Claims 19-21

Independent claim 19, as amended, recites as follows:

19. A computer readable medium having code for causing a processor to perform dynamic bin allocation, the computer readable medium comprising:
- code adapted to obtain link performance data based on a plurality of test transmissions between the first network element and the second network element, wherein the plurality of **test transmissions utilize each of a plurality of transmission modes in each of a plurality of frequency ranges**; and
 - code adapted to determine a desired transmission scheme, wherein each of the plurality of frequency ranges is designated for one of the transmission modes based at least in part on the link performance data; and
 - code adapted to **assign the desired transmission scheme to a connection between the two network elements**.

Applicant respectfully submits that independent claim 19, as amended, is allowable for at least the reason that Nelson does not disclose, teach, or suggest at least assigning the desired transmission scheme to a connection between the two network elements. The cited reference discloses the testing of "performance of digital subscriber loops... tested through transmission, reception, and analysis of a multitone power ratio waveform." However, the mere testing of digital subscriber loops, as is

disclosed in the Nelson reference, fails to disclose code adapted to determine a **desired** transmission scheme and **assign** such desired transmission scheme to a network connection. In addition, the cited reference fails to disclose the plurality of test transmissions that utilize each of a plurality of transmission modes **and** each of a plurality of frequency ranges. In contrast, Nelson discloses "monitoring a channel response to a waveform that consists of a large number of frequency domain impulses, uniformly spaced over the bandwidth of interest," whereas the claimed invention utilizes **each** of a plurality of transmission modes in **each** of a plurality of frequency ranges. Therefore, Nelson does not anticipate independent claim 19, and the rejection should be withdrawn for at least the above reasons.

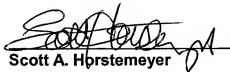
For at least the reason that independent claim 19, as amended, is allowable over the cited references of record, dependent claims 20-21 (which depend from independent claim 19) are allowable as a matter of law for at least the reason that dependent claims 20-21 contain all the features of independent claim 19. See *Minnesota Mining and Manufacturing Co. v. Chemque, Inc.*, 303 F.3d 1294, 1299 (Fed. Cir. 2002) *Jeneric/Pentron, Inc. v. Dillon Co.*, 205 F.3d 1377, 54 U.S.P.Q.2d 1086 (Fed. Cir. 2000); *Wahpeton Canvas Co. v. Frontier Inc.*, 870 F.2d 1546, 10 U.S.P.Q.2d 1201 (Fed. Cir. 1989). Therefore, since dependent claims 20-21 are patentable over Nelson, the rejection of claims 20-21 should be withdrawn and the claims allowed.

CONCLUSION

In light of the foregoing amendments and for at least the reasons set forth above, Applicant respectfully submits that all objections and/or rejections have been traversed, rendered moot, and/or accommodated, and that the now pending claims 1-21 are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

It is believed that no extensions of time or fees for net addition of claims are required, beyond those which may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required therefor (including fees for net addition of claims) are hereby authorized to be charged to deposit account No. 50-0835.

Respectfully submitted,


Scott A. Horstemeyer
Reg. No. 34,183

**THOMAS, KAYDEN, HORSTEMEYER
& RISLEY, L.L.P.**
600 Galleria Parkway SE
Suite 1500
Atlanta, Georgia 30339
(770) 933-9500